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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,763	07/22/2003	F. Coyne Prenger	S-100,646	7843

7590 03/13/2006
Bruce H. Cottrell
Los Alamos National Laboratory
LC/IP, MS A187
Los Alamos, NM 87545

EXAMINER

BARRY, CHESTER T

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,763

Applicant(s)

PRENGER ET AL.

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1724

Claims 31, 34 – 36 are rejected under 35 USC Sec. 103(a) as obvious over Lidzey. USP 5441648 to Lidzey describes a mixing chamber A, a ball matrix within a magnetic separator, and an outlet F. The balls of the matrix are 2 cm diameter “magnetic stainless steel balls.” Magnetic balls of this size made from stainless steel inherently exhibit remnant magnetism. It is noted that applicant’s stainless steel steel wool exhibits remnant magnetism (Specification, page 13 lines 12-15). The ref. describes placing magnetite and water to be decontaminated in the feed tank A, but does not appear to describe two inlet conduits for adding contaminated water and magnetite into the feed tank. It would have been obvious to have provided the stirred feed tank with conduit for separately adding contaminated water and magnetite to the feed tank A in order to facilitate continuous processing of the water. The patent describes adding water at E and draining water out at D. It would have been obvious to have provided the water to E via a conduit to facilitate continuous operation of the matrix backwashing process.

Per claim 36, the ref. describes the ball matrix chamber as on having a cross sectional area of about $(13 \times 4) \text{ cm}^2$, or about 52 cm^2 (at col 2 line 65). At the water flow rates described in the ref., i.e., 4, 2, and 1 L/min (see col/line 4/37), the superficial water velocity through the magnetic separator is inherently described as about 1.3, 0.6, and 0.3 cm/sec.

Response to Arguments

Applicant argues that Lidzey does not describes a matrix exhibiting remnant magnetism. The examiner disagrees because Lidzey teaches shutting off the electromagnetic, and because applicant's remnant-magnetic matrix is made from stainless steel, the same material from which Lidzey's ball matrix is made. USP 6383397 teaches that it is difficult to remove residual magnetism from magnetized substances or elements shortly after the magnetic field is removed by cutting the electrical current.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


CHESTERT. BARRY
PRIMARY EXAMINER

571-272-1152